

8512

I/WE CLAIM:

1. In a method of making a circuit board holder,
the improvement comprising in combination:
providing said circuit board holder with a face plate and
with walls projecting from an inside of said face plate;
equipping a pair of opposite ones of said walls with circuit
board retainers; and
equipping said circuit board holder with a holder retainer
for releasably retaining said circuit board holder in said
aperture of the panel.

2. A method as in claim 1,
wherein:
at least one of another pair of said walls is provided with
a lateral opening covering more than one half of that one wall.

3. A method as in claim 1,
wherein:
said circuit board retainers are provided inside of said
circuit board holder.

4. A method as in claim 1,
wherein:
said circuit board retainers are provided externally of an
inside space of said circuit board holder.

5. A method as in claim 1,
wherein:
said circuit board retainers are provided inside of said
circuit board holder and externally of an inside space of said
circuit board holder.

1 6. A method as in claim 1,

2 wherein:

3 a circuit board is inserted into said circuit board holder
4 and is substantially retained in a first direction inside of
5 said circuit board holder and is substantially retained in a
6 second direction externally of an inside space of said circuit
7 board holder.

1 A method as in claim 1,

2 wherein:

3 said pair of opposite walls is provided with extensions
4 beyond said inside of the circuit board holder; and
5 said extensions are equipped with external circuit board
6 retainers.

1 8. A method as in claim 1,

2 wherein:

3 said circuit board retainers are shaped as spaced rails for
4 slideably receiving a circuit board.

1 9. A method as in claim 1,

2 wherein:

3 said circuit board retainers are shaped as several spaced
4 rails in each of said pair of opposite walls for slideably
5 receiving at least one circuit board at one of several levels in
6 said circuit board holder.

1 10. A method as in claim 1,

2 wherein:

3 said holder retainer is shaped as a resilient snap for
4 releasably retaining said circuit board holder in a panel.

1 11. A method as in claim 1,
2 wherein:

3 said holder retainer is shaped as a pair of resilient snaps
4 at said pair of opposite walls for releasably retaining said
5 circuit board holder in a panel.

1 12. A method as in claim 1,
2 wherein:

3 a circuit board is inserted in said circuit board holder and
4 is releasably retained with said circuit board retainers inside
5 of said circuit board holder.

1 13. A method as in claim 1,
2 wherein:

3 said circuit board holder is provided with external circuit
4 board retainers in addition to internal circuit board
5 retainers; and

6 a circuit board is inserted in said circuit board holder and
7 is releasably retained with said internal circuit board
8 retainers inside of said circuit board holder and is releasably
9 retained in said circuit board holder with said external
10 circuit board retainers.

1 14. A method as in claim 1,

2 wherein:

3 said circuit board holder is provided with spaced external
4 circuit board retainers in addition to internal circuit board
5 retainers;

6 a circuit board is provided with a frontal portion of
7 reduced width relative to a subsequent main portion of said
8 circuit board; and

9 said circuit board is inserted in said circuit board holder
10 by inserting said frontal portion of reduced width in between
11 said spaced external circuit board retainers and by thereupon
12 forcing apart said spaced external circuit board retainers with
13 said main portion of said circuit board and continuing
14 insertion of said circuit board into said circuit board holder
15 so that said circuit board is releasably retained with said
16 internal circuit board retainers inside of said circuit board
17 holder and is stabilized in said circuit board holder with said
18 external circuit board retainers.

1 15. A method as in claim 1,

2 wherein:

3 said circuit board retainers are shaped as spaced rails for
4 slideably receiving a circuit board; and

5 said circuit board holder is equipped with circuit board
6 accommodations at said rails at a distance from a rear of said
7 face plate.

1 16. A method as in claim 1,

2 wherein:

3 said circuit board retainers are shaped as spaced rails for
4 slideably receiving a circuit board; and

5 said circuit board holder is equipped with circuit board
6 stops at said rails at a distance from a rear of said face
7 plate.

1 17. A method as in claim 1,

2 wherein:

3 said circuit board holder is provided with spaced external
4 circuit board retainers in addition to internal circuit board
5 retainers;

6 a circuit board is provided with catches corresponding to
7 said external circuit board retainers; and

8 said circuit board is inserted in said circuit board holder
9 and is retained in said circuit board holder with said external
10 circuit board retainers and corresponding catches.

1 18. A method as in claim 1,

2 wherein:

3 said holder retainer is provided with serrations for
4 mounting said circuit board holder in different mounting
5 panels.

6 19. A method as in claim 1,

7 including:

8 providing a panel with an aperture for receiving said
9 circuit board holder;

10 providing said panel with a slot at said aperture for access
11 to said holder retainer through said panel; and

12 effecting release of said holder retainer through said slot
13 for removal of said circuit board holder from said panel.

20. A method as in claim 1,

including:

shaping said holder retainer as a resilient snap for releasably retaining said circuit board holder in a panel;

providing a panel with an aperture for receiving said circuit board holder;

providing said panel with a slot at said aperture for access to said resilient snap through said panel; and

effecting release of said resilient snap through said slot for removal of said circuit board holder from said panel.

21. A method as in claim 20,

including:

providing a tool insertable through said slot; and

releasing said resilient snap with said tool through said slot in said panel.

姓名	性别	年龄	职业	住址	联系电话	电子邮箱	备注
张三	男	35	教师	北京市海淀区中关村大街100号	13800138000	zhangsan@163.com	无
李四	女	28	医生	北京市朝阳区建国路123号	13900139000	lisi@163.com	无
王五	男	42	工程师	上海市浦东新区世纪大道100号	13600136000	wangwu@163.com	无
赵六	女	30	会计	广州市天河区珠江新城100号	13500135000	zhaoliu@163.com	无
孙七	男	38	律师	深圳市福田区福田街道100号	13400134000	sunqi@163.com	无
周八	女	25	设计师	深圳市南山区科技园100号	13300133000	zhouba@163.com	无
吴九	男	45	经理	武汉市武昌区中南路100号	13200132000	wujiu@163.com	无
郑十	女	32	护士	长沙市岳麓区岳麓大道100号	13100131000	zhengshi@163.com	无
陈十一	男	29	程序员	杭州市西湖区文三路100号	13000130000	chen11@163.com	无
冯十二	女	33	销售	南京市鼓楼区鼓楼区大街100号	12900129000	feng12@163.com	无
朱十三	男	40	司机	昆明市五华区五华区大街100号	12800128000	zhu13@163.com	无
徐十四	女	27	文员	贵阳市南明区南明大街100号	12700127000	xu14@163.com	无
马十五	男	36	厨师	海口市龙华区龙华大街100号	12600126000	ma15@163.com	无
宋十六	女	31	教师	海口市秀英区秀英大街100号	12500125000	song16@163.com	无
李十七	男	41	医生	海口市琼山区琼山区大街100号	12400124000	li17@163.com	无
王十八	女	26	工程师	海口市美兰区美兰大街100号	12300123000	wang18@163.com	无
赵十九	男	34	会计	海口市龙华区龙华大街100号	12200122000	zhao19@163.com	无
孙二十	女	39	律师	海口市秀英区秀英大街100号	12100121000	sun20@163.com	无
周二十一	男	24	设计师	海口市琼山区琼山区大街100号	12000120000	zhou21@163.com	无
吴二十二	女	43	经理	海口市美兰区美兰大街100号	11900119000	wu22@163.com	无
郑二十三	男	37	护士	海口市龙华区龙华大街100号	11800118000	zheng23@163.com	无
陈二十四	女	30	程序员	海口市秀英区秀英大街100号	11700117000	chen24@163.com	无
冯二十五	男	28	销售	海口市琼山区琼山区大街100号	11600116000	feng25@163.com	无
朱二十六	女	44	司机	海口市美兰区美兰大街100号	11500115000	zhu26@163.com	无
徐二十七	男	29	文员	海口市龙华区龙华大街100号	11400114000	xu27@163.com	无
马二十八	女	35	厨师	海口市秀英区秀英大街100号	11300113000	ma28@163.com	无
宋二十九	男	32	教师	海口市琼山区琼山区大街100号	11200112000	song29@163.com	无
李三十	女	46	医生	海口市美兰区美兰大街100号	11100111000	li30@163.com	无
王三十一	男	27	工程师	海口市龙华区龙华大街100号	11000110000	wang31@163.com	无
赵三十二	女	38	会计	海口市秀英区秀英大街100号	10900109000	zhao32@163.com	无
孙三十三	男	42	律师	海口市琼山区琼山区大街100号	10800108000	sun33@163.com	无
周三十四	女	25	设计师	海口市美兰区美兰大街100号	10700107000	zhou34@163.com	无
吴三十五	男	47	经理	海口市龙华区龙华大街100号	10600106000	wu35@163.com	无
郑三十六	女	36	护士	海口市秀英区秀英大街100号	10500105000	zheng36@163.com	无
陈三十七	男	31	程序员	海口市琼山区琼山区大街100号	10400104000	chen37@163.com	无
冯三十八	女	29	销售	海口市美兰区美兰大街100号	10300103000	feng38@163.com	无
朱三十九	男	45	司机	海口市龙华区龙华大街100号	10200102000	zhu39@163.com	无
徐四十	女	33	文员	海口市秀英区秀英大街100号	10100101000	xu40@163.com	无
马四十一	男	39	厨师	海口市琼山区琼山区大街100号	10000100000	ma41@163.com	无
宋四十二	女	28	教师	海口市美兰区美兰大街100号	99900999000	song42@163.com	无
李四十三	男	43	医生	海口市龙华区龙华大街100号	99800998000	li43@163.com	无
王四十四	女	26	工程师	海口市秀英区秀英大街100号	99700997000	wang44@163.com	无
赵四十五	男	34	会计	海口市琼山区琼山区大街100号	99600996000	zhao45@163.com	无
孙四十六	女	39	律师	海口市美兰区美兰大街100号	99500995000	sun46@163.com	无
周四十七							

1 22. A method of mounting a device in an aperture of a panel,
2 comprising in combination:
3 providing said device with a resilient snap for releasably
4 retaining said device in said panel at said aperture;
5 providing said panel with a slot at said aperture for access
6 to said resilient snap through said panel; and
7 releasing said resilient snap through said slot for removal
8 of said device from said panel.

1 23. A method as in claim 22,
2 including:
3 providing a tool insertable through said slot; and
4 releasing said resilient snap with said tool through said
5 slot in said panel.

1 24. A method as in claim 22,
2 wherein:
3 said holder retainer is provided with serrations for
4 mounting said resilient snap in different mounting panels.

1 25. A circuit board holder,

2 comprising in combination:

3 a face plate and walls projecting from an inside of said
4 face plate;

5 circuit board retainers at a pair of opposite ones of said
6 walls; and

7 a holder retainer at an edge of said face plate.

1 26. A circuit board holder as in claim 25,

2 wherein:

3 at least one of another pair of said walls has a lateral
4 opening covering more than one half of that one wall.

1 27. A circuit board holder as in claim 25,

2 wherein:

3 said circuit board retainers are inside of said circuit
4 board holder.

1 28. A circuit board holder as in claim 25,

2 wherein:

3 said circuit board retainers are external of an inside space
4 of said circuit board holder.

1 29. A circuit board holder as in claim 25,

2 wherein:

3 said circuit board retainers are inside of said circuit
4 board holder and are external of an inside space of said
5 circuit board holder.

1 30. A circuit board holder as in claim 25,

2 wherein:

3 said pair of opposite walls has extensions beyond an inside
4 of the circuit board holder; and

5 circuit board retainers are on said extensions.

1 31. A circuit board holder as in claim 25,
2 wherein:

3 said circuit board retainers include spaced rails on said
4 pair of opposite walls inside of said circuit board holder.

1 32. A circuit board holder as in claim 25,
2 wherein:

3 said circuit board retainers include several spaced
4 rails in each of said pair of opposite walls.

1 33. A circuit board holder as in claim 25,
2 wherein:

3 said holder retainer is a resilient snap.

1 34. A circuit board holder as in claim 25,
2 wherein:

3 said holder retainer includes a pair of resilient snaps at
4 said pair of opposite walls.

1 35. A circuit board holder as in claim 25,
2 including:

3 an inserted circuit board extending across said circuit
4 board holder between said pair of opposite walls and circuit
5 board retainers.

1 36. A circuit board holder as in claim 25,
2 including:

3 extensions of said pair of opposite walls beyond an inside
4 of the circuit board holder;

5 circuit board retainers on said extensions; and

6 an inserted circuit board extending across said circuit
7 board holder between said pair of opposite walls and extending
8 between said circuit board retainers on said extensions.

1 37. A circuit board holder as in claim 25,

2 wherein:

3 said circuit board retainers include spaced rails on said
4 pair of opposite walls inside of said circuit board holder; and

5 said circuit board holder has circuit board accommodations
6 at said rails at a distance from a rear of said face plate.

1 38. A circuit board holder as in claim 25,

2 wherein:

3 said circuit board retainers include spaced rails on said
4 pair of opposite walls inside of said circuit board holder; and

5 said circuit board holder has circuit board stops at said
6 rails at a distance from a rear of said face plate.

1 39. A circuit board holder as in claim 25,

2 including:

3 an inserted circuit board having lateral catches externally
4 of a space inside said circuit board holder;

5 extensions of said pair of opposite walls; and

6 circuit board retainers on said extensions and lateral
7 catches.

1 40. A circuit board holder as in claim 25,

2 including:

3 an aperture in said face plate; and

4 a signal lamp in said aperture.

1 41. A circuit board holder as in claim 25,

2 including:

3 panel-accommodating serrations in said holder retainer.

1 42. A circuit board holder as in claim 25,
2 in combination with:

3 a panel having an aperture adapted to receive said walls of
4 said circuit board holder behind said face plate; and

5 a slot in said panel at said aperture exposing said holder
6 retainer through said panel at an edge of said aperture in said
7 panel.

1 43. A combination as in claim 42,
2 including:

3 a holder retainer release tool having lateral dimensions
4 smaller than said slot.

1 44. In combination:

2 a panel having an aperture;

3 a device retained in said aperture by a resilient snap at an
4 edge of said aperture; and

5 a slot in said panel at said aperture exposing said
6 resilient snap through said panel at an edge of said aperture
7 in said panel.

1 45. A combination as in claim 44,

2 including:

3 a snap release tool having lateral dimensions smaller than
4 said slot.

1 46. A combination as in claim 44,

2 including:

3 panel-accommodating serrations in said resilient snap.